

Patent Claims

1. Mixer, in particular a feed mixer, with a mixing chamber, which is provided with a discharge opening for the mix, and in which a mixing screw is accommodated, driven about a vertical rotating axis, and with a rotary driven device for smoothing the discharge of the mix which is provided in the lower section of the mixing screw assigned to the discharge opening, **characterized in that** the device (10) contains at least one guide plate (11), which increases the action of the centrifugal force on the mix, with a deposition surface (11a) for the mix.
2. Mixer according to Claim 1, **characterized in that** the deposition surface (11a) takes up approximately 20% to approximately 40%, preferably approximately 30%, of the angular range around the rotating axis (7a).
3. Mixer according to Claim 1 or 2, **characterized in that** the distance of a radially outer boundary (13) of the deposition surface (11a) to the rotating axis (7a) is essentially the same over the length of the boundary (13) in the direction of rotation (D).
4. Mixer according to one of the Claims 1 to 3, **characterized in that** the deposition surface (11a) comprises a greater width in the direction of rotation (D) in an outer region radially with regard to the rotating axis (7a) than in a radially inner region.
5. Mixer according to one of the Claims 1 to 4, **characterized in that** the deposition surface (11a) comprises a shape similar to a circular sector or cake slice.
6. Mixer according to one of the Claims 1 to 5, **characterized in that** the guide plate (11) comprises a leading take-up edge (12), the radially outer section

of which is arranged trailing compared to its radially inner section in the direction of rotation (D).

7. Mixer according to Claim 6, **characterized in that** the take-up edge (12) essentially runs tangential to a screw shaft (8) containing the rotating axis (7a).

8. Mixer according to one of the Claims 1 to 7, **characterized in that** the deposition surface (11a) runs at a pitch angle.

9. Mixer according to one of the Claims 1 to 8, **characterized in that** the deposition surface (11a) is formed flat.

10. Mixer according to one of the Claims 1 to 9, **characterized in that** at least two deposition surfaces (11a) are provided, distributed evenly around the rotating axis (9a).

11. Mixer according to one of the Claims 1 to 10, **characterized in that** the guide plate (11) is connected to the lower winding of the spiral (9) of the mixing screw (7).

12. Mixer according to one of the Claims 1 to 10, **characterized in that** a trailing edge (14) of the guide plate (11) is arranged at a vertical distance (v) above and a horizontal distance (h) in front of a leading take-up edge (18) of the mixing screw (17).

13. Mixer according to one of the Claims 1 to 10, **characterized in that** a trailing edge (14) of the guide plate (11) is arranged at a vertical distance (v) above the leading take-up edge (28) of the mixing screw (27) and is overlapping the leading take-up edge (28) with a horizontal distance (h).

14. Mixer according to one of the Claims 1 to 13, **characterized in that** the mixing screw (7, 17, 27) comprises a spiral (9) with which the diameter of the

lowermost winding compared to the diameter of the second lowermost winding narrows more than the diameter of the second lowermost winding compared to the diameter of the winding following the second lowermost winding.